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SUBJECT Propose Amendment (09/974,988)

Number of Pages 13

Date 5/18/2004

MESSAGE

Examiner Robinson:

As promised, here is the proposed amendment. Looking forward to the phone interview on Monday 5/24/04.

Volel

NOT ENTERED CEN 5/24/04

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Amdt. dated 05/18/2004
Reply to Office Action of 03/01/2004

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Application of: :
Keohane et al. :
Serial No: 09/974,988 : Before the Examiner:
: Robinson, Greta Lee
Filed: 10/11/2001 : Group Art Unit: 2177
Title: APPARATUS AND METHOD : Confirmation No.: 8102
OF PREDICTING FILE DOWNLOAD :
TIME BASED ON HISTORICAL DATA :
:

PROPOSED AMENDMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Office Action of March 01, 2004,
please amend the above-identified patent Application as
provided below and consider the following Remarks.

Amendments to the ABSTRACT begin on page 2 of this paper.

Amendments to the CLAIMS begin on page 3 of this paper.

Remarks begin on page 7 of this paper.

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IN THE ABSTRACT:

Please amend the ABSTRACT on page 18 as shown below.

A method, system and apparatus for predicting a download time for a file using historical data are provided. A cross-reference table is used to archive an average time taken to download at least one file from a first computer system (e.g., a server) to a second computer system (e.g., a client). Whenever a file is to be downloaded from the first computer to the second sometime in the future ~~future~~, the size of the file is divided by the time stored in the table to predict how long it will take for the entire file to be downloaded.

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IN THE CLAIMS:

Please amend Claims 1 and 10 as shown below.

1. (Currently amended) A method of predicting a file download time before said file is being downloaded, said file having a size and being downloaded from a first computer system to a second computer system, said method comprising the steps of:

calculating the predicted download time using the size of the file and ~~at least a historical~~ an average file download time between the first computer system and the second computer system; and

displaying the calculated time.

2. Canceled.
3. (Currently amended) The method of Claim 1 wherein said ~~historical~~ average file download time is based on an analysis of most recent download times.
4. The method of Claim 1 wherein the predicted download time is calculated by the first computer system.
5. The method of Claim 1 wherein the predicted download time is calculated by the second computer system.
6. (Currently amended) A computer program product stored on a computer readable medium for predicting a file

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download time before said file is being downloaded,
said file having a size and being downloaded from a
first computer system to a second computer system,
said computer program product comprising:

code means for calculating the predicted download time
using the size of the file and ~~at least a historical~~
an average file download time between the first
computer system and the second computer system; and

code means for displaying the calculated time.

7. Canceled.
8. (Currently amended) The computer program product of Claim 6 wherein said ~~historical~~ average file download time is based on an analysis of most recent download times.
9. The computer program product of Claim 6 wherein the predicted download time is calculated by the first computer system.
10. The computer program product of Claim 6 wherein the predicted download time is calculated by the second computer system.
11. (Currently amended) An apparatus for predicting a file download time before said file is being downloaded,
said file having a size and being downloaded from a

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first computer system to a second computer system,
said apparatus comprising:

means for calculating the predicted download time
using the size of the file and ~~at least a historical~~
an average file download time between the first
computer system and the second computer system; and

means for displaying the calculated time.

12. Canceled.
13. (Currently amended) The apparatus of Claim 11 wherein
said ~~historical~~ average file download time is based on
an analysis of most recent download times.
14. The apparatus of Claim 11 wherein the predicted
download time is calculated by the first computer
system.
15. The apparatus of Claim 11 wherein the predicted
download time is calculated by the second computer
system.
16. (Currently amended) A computer system used for
predicting a file download time before said file is
being downloaded, said file having a size and being
downloaded from another computer system to the
computer system, the computer system comprising:

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a memory to store code data; and

a processor for processing said code to calculate the predicted download time using the size of the file and ~~at least a historical~~ an average file download time between the first computer system and the second computer system, and to display the calculated time.

17. Canceled.
18. (Currently amended) The computer system of Claim 16 wherein said ~~historical~~ average file download time is based on an analysis of most recent download times.
19. The computer system of Claim 16 wherein the predicted download time is calculated by the computer system.
20. The computer system of Claim 16 wherein the predicted download time is calculated by the other computer system.

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REMARKS

Claims 1 - 20 are pending in the present Application. In the above-identified Office Action, the Examiner objected to the DRAWINGS, the SPECIFICATION including the ABSTRACT as well as Claims 1 - 20. Claims 1 - 20 were further rejected under 35 U.S.C. §103(a) as being unpatentable over Valys in view of Beyda et al.

In response to the objection of the ABSTRACT, Applicants have amended the ABSTRACT to correct the typographical error specified by the Examiner. The applicants have also amended independent Claims 1, 6, 11 and 16 to include the limitations of dependent claims 2, 7, 12, 17, respectively. Hence, Claims 2, 7, 12 and 17 have been canceled. Further, as a result of amending independent Claims 1, 6, 11 and 16, Applicants have amended claims 3, 8, 13 and 18 to for proper antecedent basis. In any case, Applicants believe that the deficiency of the claims which resulted in the claim objection has been cured.

Note that Applicants, however, have not corrected any other part of the Application since Applicants believe that, aside from the ABSTRACT and the independent Claims, the Application was properly presented for examination.

Particularly, Applicants have not amended the Drawings. The Examiner objected to the DRAWINGS because according to the Examiner, the first computer and second computer are not shown in the DRAWINGS. Applicants would like to point the Examiner to Fig. 1 of the DRAWINGS where a server 104 is shown to be connected to a group of clients

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108, 110 and 112. As specifically stated in the SUMMARY OF THE INVENTION as well as in the ABSTRACT, the first computer is a server (server 104) and the second computer is a client (any one of clients 108, 110 and 112 may be used here). Consequently, the first computer and second computer are shown in the DRAWINGS.

The Examiner has also objected to the SPECIFICATION because "the formula or function used for calculating the predicted download time using the size of the file and historical download time critical or essential to the practice of the invention, but not included in the claims is not enabled by the disclosure".

Applicants would like to point the Examiner's attention to page 11 lines 15 - 17. There, it is stated that "the size of the file (which is usually provided) will be divided by the average speed archived to arrive at a predicted download time."

Further, on page 12, lines 8 - 10 it is again stated that "the server will divide the size of the file by the archived transmission rate and displays the estimated download time".

Finally, in both the SUMMARY OF THE INVENTION and the ABSTRACT it is stated that "the size of the file is divided by the time stored in the table to predict how long it will take for the entire file to be downloaded" (see lines 8 - 10 of the ABSTRACT and SUMMARY).

Hence, applicants submit that a formula or function to practice the invention is amply described in the SPECIFICATION.

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For the reasons stated more fully below, Applicants submit that the claims in the Application are allowable over the applied references. Hence, reconsideration, allowance and passage to issue are respectfully requested.

As stated in the SPECIFICATION, historically, it has always been difficult to predict the speed at which a file will be downloaded from a server to a client. The speed of a file download depends not only on the speed at which the server can process the file out and the speed at which the client can process the file in, it also depends on the speed at which the network (whether Internet, LAN, WAN, etc.) can convey the file to the client. The present invention relies on historical data analyses to predict the speed at which a file may be downloaded from a particular server to the client.

In accordance with the teachings of the invention, when a file is to be downloaded from a first computer to a second computer, the size of the file is used in conjunction with statistics on prior file downloads from the first computer to the second computer to predict the time it may take for the file to be downloaded. By doing so, the time it may take for the first computer to process the file out and the second computer to process the file in as well as the time it may take for the network to convey the file to the second computer are all taken into account for a more accurate time prediction.

The invention is set forth in claims of varying scopes of which Claim 1 is illustrative.

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1. A method of predicting a file download time before said file is being downloaded, said file having a size and being downloaded from a first computer system to a second computer system, said method comprising the steps of:

calculating the predicted download time using the size of the file and an average file download time between the first computer system and the second computer system; and

displaying the calculated time.
(Emphasis added.)

The Examiner rejected the claims under 35 U.S.C §103(a) as being unpatentable over Valys in view of Beyda et al. Applicants respectfully disagree.

Valys purports to teach a system and method for statistical file preload for factory installed software in a computer. According to the teachings of Valys, an important aspect of manufacturing computers that are build-to-order is the time it takes to load software programs on the computers. Specifically, loading software programs on the computers is a serial process (i.e., the software programs are loaded one after another). Thus, as software programs are getting larger, the time it takes to load the programs on the computers are getting longer. To decrease this time, a company may either build additional factories or use a greater network infrastructure to increase bandwidth to the target computer systems. Either solution results in cost increase of the computers.

However, if certain software programs are pre-loaded during assembly or during the manufacturing of some components (i.e., files may be pre-loaded onto hard-drive

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when hard-drive is being manufactured), when a computer is ordered by a client, loading the software programs onto the computer to meet the client's demand will not take as long since some of the software programs will have already been pre-loaded onto the computer. However, since not all software programs will be common on the build-to-order computers, Valys provides a statistical method to determine which software programs may be pre-loaded onto the manufactured computers.

However, Valys does not teach, show or suggest calculating a predicted download time using the size of the file and an average file download time between the first computer system and the second computer system as claimed.

In the Office Action, the Examiner cited column 3, lines 8 - 19 as the passage where Valys discloses the above-italicized and emboldened limitations. Applicants disagree. In that passage, Valys explicitly discloses that historical factory download metrics and files are used in conjunction with a set of weighting functions to determine which files should be included in a statistical file preload. But nothing in the disclosure even suggests calculating a predicted download time.

The disclosure of Beyda et al. is used by the Examiner to show that it is known to display calculated time. Thus, even if Applicants were to agree with such an assertion, the combination of the teachings of Valys and Beyda et al. would not teach the invention as claimed.

Consequently, Applicants submit that Claim 1 and its dependent claims should be allowable. Independent Claims 6, 11 and 16 and their dependent claims, which all

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incorporate the above-emboldened-italicized limitations shown in the reproduced Claim 1 above, should be allowable as well. Hence, reconsideration, allowance and passage to issue are once more respectfully requested.

Respectfully submitted,
Keohane et al.

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